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MORBIDITY AND MORTALITY WEEKLY REPORT

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Epidemiologic Notes and Reports

Enterically Transmitted Non-A, Non-B Hepatitis — East Africa

Outbreaks of enterically transmitted non-A, non-B hepatitis occurred in 1985 and 1986 at refugee camps for Ethiopians in Somalia and the Sudan.

Somalia. From January 1985 to September 1986, more than 2,000 cases and 87 deaths occurred at four refugee camps in Somalia; 40 (46%) of the persons who died were pregnant women. The first outbreak among refugees occurred in Bixin Dhule, a holding camp in northwestern Somalia. During the period January-March 1985, there were 699 cases of acute hepatitis and 13 deaths. Adults accounted for 81% of the cases and 92% of the deaths. From April-June 1985, Gannet refugee camp had more than 400 cases and 16 deaths, including nine (56%) among pregnant women.

After an outbreak was recognized at the Tug Wajale B refugee camp in northwestern Somalia, intensive epidemiologic investigation and serologic testing of cases were begun. In January 1986, there had been 2,500 refugees in this camp; an influx of new refugees had increased the population to approximately 32,000 by August 1986. Starting in April 1986, medical personnel at Tug Wajale B noticed a sharp increase in the number of hepatitis cases among adult Ethiopian refugees. In addition, a number of staff members had contracted hepatitis. Cases of hepatitis (diagnosed by the presence of scleral icterus) were identified by reviewing camp medical records. The peak number of cases occurred from mid-May to mid-June (Figure 1), about 6 to 7 weeks after the beginning of a rainy season. The majority (89%) of these persons with clinical cases were young adults; an equal number of males and females were affected. Symptoms associated with hepatitis were nausea, vomiting, dark urine, fever, abdominal pain, itching, fatigue, and headache.

During this period, there were 30 deaths due to hepatitis. Sixteen of those who died were pregnant women; four were non-pregnant women; nine were men; and one was a child. Only four maternal deaths from other causes were recorded in these months. The fatality rate for second- and third-trimester women with hepatitis was 17%.

A tent-to-tent survey involving 2,000 refugees revealed a 3% point prevalence of jaundice in adults and an overall attack rate (April to mid-June) of 8%. Among children < 15 years of age, the point prevalence of jaundice was 0.2%, and the overall attack rate was 1.8%. Estimates indicated that over 2,000 cases of clinical hepatitis occurred during the study period. Among the Somali national staff the attack rate was 17%, whereas in expatriate medical personnel, the attack rate was 42%.

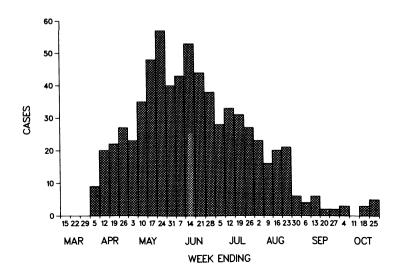
Hepatitis — Continued

Serum samples were obtained from 84 patients and 50 age- and sex-matched controls, and stool specimens were obtained from 21 patients who had been jaundiced for ≤1 week. Nine patients (10%) and two controls (4%) were positive for hepatitis B surface antigen. Of these, only one patient was positive for IgM anti-core antibody, which is indicative of recent hepatitis B infection. None of the patients or controls were positive for IgM class antibody to hepatitis A virus. Stool specimens were examined by immune electron microscopy (IEM) using serum from a Pakistani patient with known enterically transmitted non-A, non-B hepatitis (1); 27-nm virus-like particles, similar to those seen by IEM in cases from Central Asia, Nepal, and Burma, were found in 13 of 21 samples. These particles cross reacted with sera from patients of enterically transmitted non-A, non-B hepatitis from Central Asia.

Sudan. In mid-1985, when outbreaks of hepatitis were occurring at the refugee camps in Somalia, there were reports of an increase in cases of acute jaundice in Eritrean and Tigrean refugees from Ethiopia residing in refugee camps in eastern Sudan. The investigation of this occurrence included intensified surveillance in four large reception centers (Wad Sherife, Shagarab East 1, Shagarab East 2, and Wad Kowli) and a case-control study in one camp (Wad Kowli).

Active case detection by expatriate health staffs, refugee health workers, and refugee organizations revealed an increase in cases of acute illness with scleral icterus among refugees from June-October (Figure 2), beginning approximately 6 weeks after the onset of heavy rains in eastern Sudan. The majority of patients were adults >15 years of age (66%); only 6.3% were children <5 years of age. There were almost twice as many cases reported among males as among females. Reported fatality rates ranged from 1.3%-4.7% and averaged 3.1% in the four camps. Eleven of the 63 persons who died were pregnant women.

Serum samples were obtained from 175 acutely jaundiced refugees. Seven patients (4%) were positive for hepatitis B surface antigen, and one of these was positive for IgM anti-core antibody. Three other patients (2%) had only IgM anti-core antibody, also indicative of recent hepatitis B infection. Eleven patients (6%) were positive for IgM-class antibody to hepatitis A FIGURE 1. Cases of non-A, non-B hepatitis, by week — Tug Wajale, Somalia, March 15-October 25, 1986



Hepatitis - Continued

virus and were considered to have acute cases of hepatitis A. The remaining 154 patients were considered to have non-A, non-B hepatitis. A pool of serum collected from non-A, non-B hepatitis patients cross reacted with stool samples from a Pakistani patient with known enterically transmitted non-A, non-B hepatitis (1).

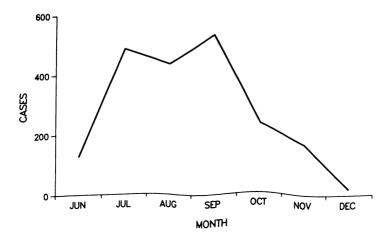
A questionnaire regarding the onset of acute jaundice among expatriate staff while working in eastern Sudan refugee camps during 1985 has been distributed to 17 agencies involved. In addition, epidemiologic and clinical data are still being collected.

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Editorial Note: Non-A, non-B hepatitis, which continues to be a diagnosis of exclusion, is considered to have two distinct forms, which are transmitted by different routes and presumably caused by different viruses. The first, initially recognized as post-transfusion non-A, non-B hepatitis, is seen commonly in North America and Europe, is epidemiologically similar to hepatitis B, and is recognized most commonly after blood transfusions and parenteral drug abuse. The second, enterically transmitted non-A, non-B hepatitis, is transmitted by the fecal-oral route. This disease is known to cause large outbreaks of viral hepatitis and has been reported in the Indian subcontinent (2-7), Burma (8), and Algeria (9). Frequently, large outbreaks have been linked to a fecally contaminated water source or have occurred after heavy rains in areas without systems for adequate sewage disposal. Person-to-person transmission can occur.

Enterically transmitted non-A, non-B hepatitis has several characteristic epidemiologic features. Its incubation period is approximately 40 days (as opposed to 30 days for hepatitis A and 60-180 days for hepatitis B). Clinical disease is common among adults, but infrequent among children. Pregnant women have a dramatically high mortality rate. Large outbreaks of acute viral hepatitis among adults in areas where the population is immune to hepatitis A should alert public health authorities to the presence of enterically transmitted non-A, non-B hepatitis.

FIGURE 2. Reported cases of jaundice among Ethiopian refugees, by month - eastern Sudan, June-December 1985



Hepatitis - Continued

Signs and symptoms of enterically transmitted non-A, non-B hepatitis are similar to those of other forms of viral hepatitis, although generalized pruritus may be more common. The majority of patients who are not pregnant recover completely, and there is no evidence of chronic liver disease as a long-term sequela. Outbreaks of disease may be identified by the suggestive epidemiologic pattern (especially the high mortality rate among pregnant women) and the exclusion, through serologic testing, of other forms of viral hepatitis. Post-transfusion non-A, non-B hepatitis has not been documented in communitywide outbreaks.

Currently, no serologic test is available for diagnosis; however, 27- to 30-nm virus-like particles have been found by IEM in stool samples of patients in the early acute phase of infection (1,7,10), and hepatitis can be induced in two different species of primates with this agent. Acute-phase antibody in sera may also be demonstrated by IEM.

In an outbreak situation, emphasis must be placed on preventing transmission. Water sources should be examined for fecal contamination. If the water supply is contaminated, all water should be boiled or chlorinated before consumption. Efforts to reduce person-to-person transmission by improving sanitation should be stressed. Immune globulin (IG) manufactured in the West does not appear to be effective in preventing disease. The efficacy of IG from endemic areas is unknown.

These reports mark the first time that this disease has been described as a problem in refugee camps and the first time that the characteristic virus-like particles have been identified in Africa. Refugee camps represent a fertile setting for the transmission of enterically transmitted non-A, non-B hepatitis. These camps usually have inadequate sanitation and are overcrowded. While contaminated drinking water was not a factor in this outbreak, this problem may exist in other refugee camps. Fecally contaminated, standing rainwater may have facilitated transmission of disease at Tug Wajale B. Finally, refugee camps are sites of contact between susceptible refugees, who may have come from remote areas, and refugees who have come from areas where this virus is endemic. Staff members working in refugee camps are also at risk for acquiring this disease and should be careful to wash their hands after contact with patients and before eating and smoking. Because of poor sanitary conditions in these camps, enterically transmitted non-A, non-B hepatitis, like other enteric diseases, is likely to be difficult to control.

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Epidemiologic Notes and Reports

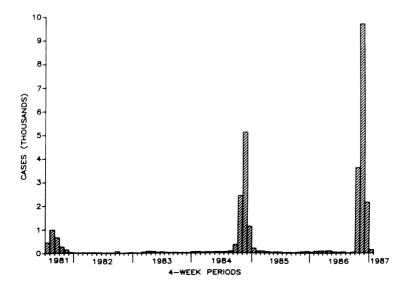
Acute Hemorrhagic Conjunctivitis Caused by Coxsackievirus A24 — Caribbean

In the fall of 1986, large outbreaks of acute hemorrhagic conjunctivitis (AHC) occurred on the islands of Trinidad, Jamaica, and St. Croix. The outbreak on Trinidad was identified through a public health surveillance program for AHC initiated during the large outbreak of AHC caused by enterovirus 70 (EV70) in 1981. Beginning in October 1986, reported physician-diagnosed cases of AHC increased from 50-100 cases per 4-week period to 9,666 at the peak of the outbreak (Figure 3). By January of 1987, the number of reported cases had returned to background level. During the 3 outbreak months, a total of 15,396 cases of AHC were reported to the Ministry of Health. Two isolates were typed as coxsackievirus A24 variant (CA24v) by strain-specific neutralizing antisera.

Between mid-October and late November, over 500 AHC patients who were self-referred and physician-diagnosed were seen at a hospital and ophthalmology clinic in Kingston, Jamaica. CA24v was isolated from five of the 15 AHC patients for whom viral cultures were performed. Three of four patients with acute- and convalescent-phase serum pairs available had a >16-fold rise in antibody titer (<10 to >80) to the outbreak virus. Over 500 patients with AHC were also seen on the island of St. Croix in the Virgin Islands during October and November, but no isolates or serum specimens were obtained.

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FIGURE 3. Incidence of acute hemorrhagic conjunctivitis — Trinidad, 1981-1987



Conjunctivitis — Continued

Editorial Note: Both EV70 and CA24v have caused large outbreaks of AHC, usually in tropical, coastal cities; however, this is the first report of an isolation of CA24v in the western hemisphere. AHC, which follows an incubation period of 18 to 48 hours, is characterized by sudden onset of painful, swollen, red eyes with subconjunctival hemorrhaging, palpebral follicles, and excessive tearing (1). The symptoms usually persist for 3 to 5 days. The outbreaks have been explosive in nature, often affecting 50% or more of the persons in communities with a low socioeconomic status within a 1- to 2-month period (1). Spread appears to be related to crowding, poor hygiene, and other conditions characteristic of such communities (2).

The first reports of AHC caused by EV70 were from western Africa in 1969; this virus has caused major pandemics since then (1). In 1981, during the last pandemic, EV70 was introduced into the western hemisphere and caused outbreaks in Central America, South America, and Florida (3-7). CA24v was first isolated during an outbreak in Singapore in 1970 (8). Prior to 1986, CA24v had not been reported outside of Southeast Asia and the Indian subcontinent (1). In 1986, CA24v was isolated during outbreaks in Taiwan, American Samoa,

(Continued on page 251)

| TABLE I. Summary | - cases | specified | notifiable | diseases | United States |
|------------------|---------|-----------|------------|----------|---------------|
|------------------|---------|-----------|------------|----------|---------------|

| | 1 | 6th Week Endi | ng | Cumula | itive, 16th We | ek Ending |
|---|------------------|------------------|---------------------|------------------|------------------|---------------------|
| Disease | Apr. 25, 1987 | Apr. 19, 1986 | Median 1982-1986 | Apr. 25, 1987 | Apr. 19, 1986 | Median 1982-1986 |
| Acquired Immunodeficiency Syndrome (AIDS) | 558 | 276 | N | 6,022 | 3.854 | N |
| Aseptic meningitis | 75 | 78 | 66 | 1,344 | 1,319 | 1,249 |
| Encephalitis: Primary (arthropod-borne | | | | | | |
| & unspec) | 14 | 6 | 14 | 228 | 257 | 276 |
| Post-infectious | 2 | - | 2 | 15 | 30 | 29 |
| Gonorrhea: Civilian | 15,880 | 15,247 | 15,632 | 241,449 | 255,018 | 255,018 |
| Military | 334 | 342 | 354 | 5,303 | 4,829 | 6,476 |
| Hepatitis: Type A | 473 | 382 | 407 | 7,558 | 6,877 | 6,877 |
| Type B | 491 | 499 | 465 | 7,590 | 7,636 | 7,499 |
| Non A, Non B | 55 | 77 | N | 915 | 1,037 | N |
| Unspecified | 70 | 92 | 117 | 1,031 | 1,523 | 1,593 |
| Legionellosis | 25 | 8 | N | 223 | 181 | N |
| Leprosy | - | 6 | 6 | 63 | 85 | 84 |
| Malaria | 13 | 9 | 9 | 198 | 214 | 210 |
| Measles: Total* | 92 | 266 | 95 | 1,040 | 2,077 | 818 |
| Indigenous | 48 | 256 | N | 882 | 2.014 | N |
| Imported | 44 | 10 | N | 158 | 59 | N |
| Meningococcal infections: Total | 64 | 39 | 74 | 1,119 | 1.018 | 1,075 |
| Civilian | 64 | 39 | 73 | 1,118 | 1.016 | 1,064 |
| Military | - | - | - | 1 | 2 | 3 |
| Mumps | 321 | 52 | 85 | 5,674 | 1.075 | 1,291 |
| Pertussis | 29 | 72 | 33 | 546 | 759 | 558 |
| Rubella (German measles) | 4 | 16 | 16 | 99 | 160 | 172 |
| Syphilis (Primary & Secondary): Civilian | 646 | 382 | 552 | 10,009 | 7.697 | 8,704 |
| Military | l 1 | 2 | 5 | 63 | 74 | 102 |
| Toxic Shock syndrome | I з | 15 | N | 93 | 107 | N |
| Tuberculosis | 410 | 425 | 433 | 5,950 | 5.855 | 6,159 |
| Tularemia | 5 | 1 | 1 | 28 | 20 | 26 |
| Typhoid Fever | 8 | 1 | 6 | 79 | 66 | 100 |
| Typhus fever, tick-borne (RMSF) | 3 | 1 | 5 | 15 | 22 | 25 |
| Rabies, animal | 81 | 107 | 125 | 1,375 | 1,609 | 1,609 |

TABLE II. Notifiable diseases of low frequency, United States

| | Cum. 1987 | | Cum. 1987 |
|---|------------------------------|--|--|
| Anthrax Botulism: Foodborne Infant Other Brucellosis Cholera Congenital rubella syndrome Congenital syphilis, ages < 1 year Diphtheria | 1 18 - 22 - 2 | Leptospirosis (Mo. 1) Plague Poliomyelitis, Paralytic Psittacosis (Conn. 1; Md. 1; Tenn. 1; Calif. 1) Rabies, human Tetanus (Tex. 1) Trichinosis Typhus fever, flea-borne (endemic, murine) (Tex. 1) | 8 2 - 23 - 9 11 6 |

^{*}Eight of the 92 reported cases for this week were imported from a foreign country or can be directly traceable to a known internationally imported case within two generations.

TABLE III. Cases of specified notifiable diseases, United States, weeks ending
April 25, 1987 and April 19, 1986 (16th Week)

| | AIDS | Aseptic Menin- | Encep | halitis | Gond | rrhea | Н | epatitis (V | iral), by ty | pe | Legionel- | l |
|-----------------------|--------------|-------------------|-------------|----------------------|------------------|-----------------|----------|-------------|--------------|------------------|-----------|-------------|
| Reporting Area | AIUS | gitis | Primary | Post-in- fectious | | ilian) | Α | В | NA,NB | Unspeci- fied | losis | Leprosy |
| | Cum 1987 | 1987 | Cum 1987 | Cum. 1987 | Cum 1987 | Cum 1986 | 1987 | 1987 | 1987 | 1987 | 1987 | Cum 1987 |
| UNITED STATES | 6,022 | 75 | 228 | 15 | 241,449 | 255,018 | 473 | 491 | 55 | 70 | 25 | 63 |
| NEW ENGLAND | 221 | 1 | 9 | 1 | 8,521 | 5,653 | 10 | 32 | 1 | 5 | - | 4 |
| Maine N H | 10 5 | : | 1 | - : | 249 143 | 291 160 | 2 | 4 | - | - | - | - |
| Vt | 4 | - | 2 | - | 62 | 90 | - | - | - | - | - | 2 |
| Mass | 131 | 1 | 2 | - | 3,138 | 2,439 | 5 | 23 | 1 | 4 | - | 2 |
| R I Conn | 19 52 | - | 3 1 | 1 - | 710 4,219 | 525 2,148 | 3 | 1 4 | - | 1 - | - | - |
| MID ATLANTIC | 1,926 | 8 | 26 | 1 | 40,108 | 44,166 | 11 | 21 | 4 | 10 | 2 | 5 |
| Upstate N Y | 227 1,200 | 5 3 | 15 4 | 1 | 5,195 | 4,795 | 11 | 14 | 4 | 5 | - | |
| N Y City N J | 391 | - | 2 | | 21,504 5,018 | 25,936 5,978 | - | 7 | - | 5 | 2 | 5 |
| Pa | 108 | - | 5 | - | 8,391 | 7,457 | - | - | - | - | - | - |
| EN CENTRAL | 356 | 5 | 57 | - | 27,214 | 35,629 | 17 | 57 | 3 | 3 | 2 | 1 |
| Ohio Ind | 70 31 | 1 | 23 | - | 7,442 | 8,624 | 4 | 12 | 1 | - | 2 | i |
| III | 153 | 2 | 3 8 | : | 2,801 3,663 | 3,887 8,948 | 1 5 | 19 | 1 | 2 | - | - |
| Mich | 69 | 2 | 21 | | 10,821 | 10,335 | 5 7 | 13 13 | 1 | 1 | - | - |
| Wis | 33 | - | 2 | - | 2,487 | 3,835 | - | - | - | - | - | |
| W N CENTRAL | 132 36 | 2 1 | 14 8 | - | 9,870 | 11,108 | 22 | 23 | 2 | - | 4 | - |
| Minn Iowa | 5 | | 1 | - | 1,555 958 | 1,663 1,087 | 3 | 4 | - | - | - | - |
| Mo | 67 | 1 | | - | 5,101 | 5,400 | 9 | 13 | 2 | | - | - |
| N Dak | 1 | - | - | - | 89 | 106 | - | - | - | - | - | |
| S Dak | 1 7 | - | - | - | 196 | 222 | - | - | - | - | 3 | - |
| Nebr Kans | 15 | - | 3 2 | - | 582 1,389 | 789 1,841 | 2 8 | 1 1 | - | - | 1 | - |
| S ATLANTIC | 927 | 21 | 34 | 6 | 65,646 | 63,240 | 32 | 111 | 8 | 6 | 4 | 4 |
| Del | 8 | - ' | 1 | - | 977 | 1,027 | - 32 | | - | - | 4 | 4 |
| Md | 110 | 1 | 3 | 1 | 8,418 | 7,901 | 3 | 12 | - | - | 1 | 2 |
| D C Va | 127 | - | 45 | - : | 4,411 | 4,856 | 1 | | | - | 1 | - |
| W Va | 68 5 | 3 1 | 15 5 | 1 | 5,000 518 | 5,388 787 | 8 1 | 13 4 | 1 | - | - | - |
| N C | 37 | 3 | 8 | - | 9,747 | 10,512 | ż | 21 | 2 | 1 | | - |
| s c | 24 | - | - | - | 5,515 | 5,706 | 2 | 13 | - | - | 2 | 1 |
| Ga Fla | 142 406 | 1 12 | 2 | 4 | 11,154 19,906 | 9,359 17,704 | 2 13 | 11 37 | 1 4 | 5 | - | 1 |
| ES CENTRAL | 64 | 4 | 14 | 3 | 18,067 | 20,795 | 3 | 31 | 2 | 3 | 5 | |
| Ку | 17 | 3 | 6 | 1 | 1,846 | 2,443 | Ī | 8 | ī | 1 | 5 | - |
| Tenn | 2 | - | 3 | • | 6,124 | 8,204 | 2 | 11 | : | : | - | - |
| Ala Miss | 37 8 | 1 | 5 - | 2 | 5,927 4,170 | 5,796 4,352 | - | 5 7 | 1 - | 1 1 | - | - |
| WS CENTRAL | 591 | 16 | 24 | 1 | 28,570 | 30,744 | 68 | 37 | 9 | 21 | 5 | 4 |
| Ark | 15 | - | - | i | 2,722 | 2,904 | 1 | 2 | 2 | -: | ĭ | |
| _a | 83 | 3 | 5 | - | 5,329 | 5,498 | 2 | 5 | | 1 | 1 | - |
| Okla Tex | 22 471 | 2 11 | 8 11 | - | 2,999 17,520 | 3,606 18,736 | 13 52 | 7 23 | 1 6 | 20 | 1 2 | 4 |
| MOUNTAIN | 139 | 1 | 7 | 1 | 6,515 | 7,554 | 61 | 40 | 5 | _ | - | |
| Mont | 2 | - | - | - | 161 | 194 | 1 | 2 | - | - | - | - |
| daho Nyo | 3 2 | - | - | - | 237 101 | 244 182 | 3 | 6 | - | - | • | - |
| Colo | 66 | - | 1 | - | 1,267 | 2,041 | 8 | 3 | - | - | | |
| N Mex | 12 | - | 1 | | 708 | 808 | 5 | 1 | 1 | - | - | |
| Ariz | 21 | - | 5 | 1 | 2,397 | 2,477 | 41 | 19 | 2 | - | - | - |
| Jtah Nev | 9 24 | ī | - | - | 229 1,415 | 329 1,279 | 1 2 | 4 5 | 2 | - | - | |
| PACIFIC | 1,666 | 17 | 43 | 2 | 36,938 | 36,129 | 249 | 139 | 21 | 22 | 3 | 45 |
| N ash | 69 | 1 | 6 | - | 2,546 | 2,849 | 75 | 33 | 7 | 3 | - | 2 |
| Oreg | 37 | 4.0 | 25 | - | 1,374 | 1,421 | 24 | 4 | 4 | 40 | - | <u> </u> |
| Calif Alaska | 1,533 3 | 16 | 35 1 | 2 | 32,095 598 | 30,506 955 | 147 3 | 95 5 | 10 | 19 | 3 | 37 |
| Haska Hawaii | 24 | - | i | - | 325 | 398 | - | 2 | - | - | - | 6 |
| Guam | - | - | - | 5 | 60 | 30 | 2 | - | - | - | - | - |
| PR | 16 | - | - | 1 | 679 73 | 710 71 | 2 | 4 | - | - | - | - |
| | | | | | | | | | | | | |
| / I Pac Trust Terr | - | | - | - | 173 | 51 | | - | - | 1 | - | 38 |

TABLE III. (Cont'd.) Cases of specified notifiable diseases, United States, weeks ending

April 25, 1987 and April 19, 1986 (16th Week)

| | | | Mes | sles (Rub | eola) | | Menin- | | | | | | T | | | |
|---------------------------|--------------|-------|--------------|------------|--------------|--------------|--------------|----------|--------------|---------|--------------|--------------|------|-------------|------------|--|
| | Malaria | Indig | enous | Impo | | Total | gococcal | Mu | mps | | Pertussis | • | ŀ | Rubella | | |
| Reporting Area | Cum. 1987 | 1987 | Cum. 1987 | 1987 | Cum. 1987 | Cum. 1986 | Cum. 1987 | 1987 | Cum. 1987 | 1987 | Cum. 1987 | Cum. 1986 | 1987 | Cum 1987 | Cur 198 | |
| UNITED STATES | 198 | 48 | 882 | 44 | 158 | 2,077 | 1,119 | 321 | 5,674 | 29 | 546 | 759 | 4 | 99 | 16 | |
| NEW ENGLAND | 14 | - | 41 | 35 | 53 | 10 | 110 | 1 | 14 | - | 14 | 40 | - | - | | |
| Maine N.H. | - | | 3 33 | 35 § | 46 | - | . 11 | - | 6 | - | 1 | 2 16 | - | - | | |
| Vt. Mass | - 7 | - | 1 | - | 5 | _ | 6 | - | 2 | - | 3 | 1 | - | - | | |
| R.I. | 4 | - | | - | 2 | 9 1 | 55 10 | - | 1 1 | - | 3 | 9 1 | - | - | | |
| Conn. | 3 | - | 4 | - | - | - | 22 | 1 | 4 | • | 7 | 11 | - | - | | |
| MID ATLANTIC Upstate N.Y. | 10 5 | 3 | 123 8 | - | 35 8 | 727 4 | 70 47 | 3 2 | 86 | 1 | 75 50 | 82 | - | 3 | 2 | |
| N Y. City | 2 | 3 | 106 | | 8 | 91 | 7 | - | 35 | 1 | 58 | 56 3 | | 1 | 1 | |
| N.J. Pa | 1 2 | - | 6 3 | - | 2 17 | 632 | 16 | 1 | 25 26 | - | 4 13 | 5 18 | - | 1 | | |
| E N. CENTRAL | | _ | | | | | | | | | | 10 | _ | _ | | |
| Ohio | 4 3 | 2 | 80 | - | 13 4 | 418 | 142 50 | 151 4 | 3,255 45 | 4 | 68 25 | 153 62 | - | 17 | 1 | |
| Ind III | - | : | - | - | - | | 17 | 73 | 419 | ī | 1 | 16 | - | - | | |
| Mich. | 1 | 1 - | 50 23 | - | 9 | 244 | 23 44 | 66 8 | 1,739 457 | 1 | 4 21 | 19 16 | - | 16 1 | ! | |
| Wis. | - | 1 | 7 | - | - | 170 | 8 | - | 595 | - | 17 | 40 | - | - | | |
| W.N. CENTRAL Minn. | 5 3 | 14 | 31 | 1 | 2 | 86 | 57 | 77 | 677 | - | 33 | 36 | - | 1 | | |
| lowa | - | - | | - | - | 1 | 17 3 | 53 11 | 434 180 | - : | 7 3 | 18 5 | - | 1 | | |
| Mo. N. Dak | 2 | 14 | 31 | - | 1 | 1 | 16 | 3 | 11 | - | 13 | 4 | - | - | | |
| S. Dak | - | - | - | - | - | 1 - | 1 | 5 | 3 20 | - | 1 2 | 2 | - | - | | |
| Vebr. Cans. | - | - | - | 1 § | 1 | 82 | 2 17 | 5 | 2 27 | - | 7 | 1 6 | - | - | | |
| S ATLANTIC | 36 | 40 | - | | | | | | | | | _ | - | - | , | |
| Del. | 1 | 10 | 36 | 1 - | 1 | 281 | 201 4 | 8 | 70 | 3 | 127 | 265 142 | 1 | 9 | | |
| Md D.C. | 8 5 | - | - | - | - | 13 | 17 | - | 8 | 1 | 2 | 38 | 1 | 2 | | |
| Va | 5 | - | | - | - | 3 | 4 37 | - | 8 | - | 32 | 9 | | 1 | | |
| W Va N C | 3 | - | - | - | - | 2 | 27 | 1 | 15 | - | 25 | 4 | - | - | | |
| S.C. | 2 | - | - | - | | 250 | 19 | 5 | 2 9 | - | 51 - | 14 2 | - | - | | |
| Ga Fla | 10 | 10 | 36 | 1 + | 1 | 1 12 | 37 56 | 2 | 6 22 | 1 | 13 4 | 42 14 | - | 1 5 | | |
| S CENTRAL | 1 | _ | _ | | | 1 | 57 | 32 | 823 | • | | | - | | | |
| (y | - | - | - | - | - | - | 9 | 8 | 192 | - | 7 1 | 15 1 | - | 2 2 | | |
| Tenn Ala | - | - | - | - | - | 1 | 22 22 | 24 | 621 10 | - | 1 3 | 5 9 | - | - | | |
| Miss | 1 | - | - | - | - | - | 4 | - | - | - | 2 | - | - | - | | |
| NS CENTRAL | 12 | 7 | 74 | _ | 1 | 313 | 83 | 21 | 484 | 4 | 40 | 25 | | 1 | 3 | |
| Ark .a | 1 | - | - | - | - | 273 | 7 | - | 202 | - | 2 | 2 | - | i | 3: | |
| Okla | 3 | - | - | - | 1 | 2 | 10 14 | 13 N | 171 N | 3 1 | 9 29 | 3 20 | - | | | |
| Tex . | 8 | 7 | 74 | • | - | 38 | 52 | 8 | 111 | - | | | - | - | 3! | |
| MOUNTAIN Mont | 7 | - | 129 | - | 11 | 100 | 37 | 16 | 115 | - | 41 | 82 | - | 6 | | |
| daho | 1 | - | - | - | | 1 | 3 | - | 2 | - | 1 11 | 2 26 | - | 1 | | |
| V yo Colo | 1 | - | - | - | - | 3 | - | | - | - | 2 | - | - | i | | |
| l. Mex | - | - | 128 | - | 9 | 17 | 15 3 | 13 N | 21 N | - | 17 1 | 14 8 | | - | | |
| Ariz Jtah | 3 | - | 1 | - | 1 | 79 | 14 | 3 | 85 | - | 8 | 23 | - | : | | |
| lev | 2 | - | - | - | - | - | , 2 | - | 5 2 | - | 1 - | 9 | - | 4 | | |
| ACIFIC | 109 | 12 | 368 | 7 | 42 | 141 | 362 | 12 | 150 | 17 | | | _ | | | |
| Vash Oreg | 7 2 | 1 | - | _ | - | 29 | 47 | 3 | 150 27 | 17 1 | 141 22 | 61 25 | 3 | 60 | 8 | |
| Calif | 98 | 11 | 2 366 | 5 † 2 † | 32 8 | 2 90 | 14 296 | N 9 | N 110 | 10 | 13 | 5 | - | _ 1 | | |
| llaska Iawaii | 2 | - | - | - | 2 | - | 3 | - | 3 | - | 66 2 | 29 1 | 2 | 55 | 8 | |
| iuam | • | - | _ | • | 2 | 20 | 2 | - | 10 | 6 | 38 | 1 | 1 | 4 | | |
| R | - | - | 2 304 | - | : | 3 4 | 3 2 | - | 4 1 | - | 11 | - | - | - | | |
| l ac Trust Terr | - | - | - | - | - | - | - | 1 | 4 | - | - | 3 | - | 1 - | 5 | |
| mer Samoa | - | | - | - | - | - | 1 | - | 2 | 1 | 1 | - | - | 1 | | |

For measles only, imported cases includes both out-of-state and international importations.

N Not notifiable

TABLE III. (Cont'd.) Cases of specified notifiable diseases, United States, weeks ending

April 25, 1987 and April 19, 1986 (16th Week)

| | | Ap | ril 25, 198 | 7 and Ap | rii 19, 19 | 86 (1611 | vveek) | | |
|-------------------------|------------------------|--------------------------|-----------------------------|-------------|------------------|----------------|------------------|--|-------------------|
| Reporting Area | Syphilis (Primary & | (Civilian) Secondary) | Toxic- shock Syndrome | Tuber | culosis | Tula- remia | Typhoid Fever | Typhus Fever (Tick-borne) (RMSF) | Rabies, Animal |
| | Cum 1987 | Cum. 1986 | 1987 | Cum 1987 | Cum. 1986 | Cum. 1987 | Cum 1987 | Cum 1987 | Cum. 1987 |
| UNITED STATES | 10,009 | 7,697 | 3 | 5,950 | 5,855 | 28 | 79 | 15+3 | 1,375 |
| NEW ENGLAND Maine | 146 1 | 149 10 | - | 164 10 | 182 18 | - | 7 | - | - |
| N H Vt | i 1 | 6 | - | 5 4 | 9 7 | - | - | | |
| Mass | 74 | 73 | - | 78 | 88 | - | 5 | - | : |
| R I Conn | 4 65 | 9 45 | - | 16 51 | 11 49 | - | 1 | - | - |
| MID ATLANTIC | 1,762 | 1,071 | - | 1,106 | 1,174 | - | 8 | - | 115 |
| Upstate N Y N Y City | 68 1,229 | 54 604 | - | 174 543 | 183 563 | | 3 | - | 9 |
| NJ | 193 272 | 210 203 | - | 186 203 | 201 227 | - | 5 | - | 2 104 |
| Pa | | | | | | | 10 | • | |
| EN CENTRAL Ohio | 168 36 | 294 39 | 2 | 716 148 | 749 114 | 1 1 | 12 6 | - | 33 |
| Ind III | 15 58 | 40 154 | - | 63 294 | 90 338 | - | 1 2 | - | 4 17 |
| Mich | 44 | 44 | 2 | 189 | 167 | - | 2 | - | - |
| Wis | 15 | 17 | - | 22 | 40 | - | 1 | - | 12 |
| W N CENTRAL Minn | 41 5 | 71 9 | - | 174 45 | 162 37 | 8 | 5 2 | - | 295 65 |
| lowa | 7 21 | 5 39 | - | 8 89 | 13 84 | 2 5 | 3 | - | 97 17 |
| Mo N Dak | - | 2 | - | 1 | 2 | - | - | - | 38 |
| S Dak Nebr | 4 3 | 1 8 | - | 7 11 | 6 4 | - | - | - | 47 11 |
| Kans | 1 | 7 | - | 13 | 16 | 1 | - | - | 20 |
| S ATLANTIC | 3,465 | 2,261 | - | 1,170 | 1,136 | 3 | 5 | 4 | 354 |
| Del Md | 32 190 | 10 149 | - | 11 103 | 14 80 | 1 - | - | - | 93 |
| D C Va | 101 81 | 115 144 | - | 37 105 | 49 112 | 1 | - | - | 19 126 |
| W Va | 4 | 3 | - | 41 | 43 | - | 1 | - | 19 |
| N C S C | 188 242 | 165 217 | - | 117 122 | 136 131 | 1 | 1 - | 1 3 | 18 |
| Ga Fla | 504 2,123 | 383 1,075 | - | 174 460 | 143 428 | - | 3 | - | 59 20 |
| | 2,123 577 | 514 | - | 483 | 515 | 2 | 1 | 4+1 | 121 |
| ES CENTRAL Ky | 5 | 26 | - | 117 | 139 | 1 | - | - ' | 62 |
| Tenn Ala | 287 171 | 212 180 | - | 143 164 | 141 173 | - | 1 - | 3 | 38 21 |
| Miss | 114 | 96 | - | 59 | 62 | 1 | - | 1 | - |
| W S CENTRAL | 1,334 70 | 1,622 88 | - | 655 65 | 718 90 | 8 2 | 3 | 6+2 | - 200 59 |
| La | 230 | 270 | - | 105 | 145 | 1 | - | | 3 |
| Okla Tex | 45 989 | 49 1,215 | - | 70 415 | 62 421 | 5 | 1 2 | 6 2 | 5 133 |
| MOUNTAIN | 237 | 192 | 1 | 149 | 119 | 6 | 3 | - | 110 |
| Mont | 7 | 2 1 | - | 8 16 | 5 5 | 1 | - | - | 53 |
| ldaho Wyo | 22 | - | | - | - | - | - | - | 30 |
| Colo N Mex | 29 21 | 61 22 | - | 30 | 6 29 | 1 1 | 3 | - | - |
| Arız Utah | 113 6 | 83 3 | 1 | 86 1 | 57 4 | 2 1 | - | - | 27 |
| Nev | 38 | 20 | - | 8 | 13 | - | - | - | - |
| PACIFIC | 2,279 | 1,523 | - | 1,333 | 1,100 | - | 35 | 1 | 147 |
| Wash Oreg | 31 85 | 43 31 | - | 61 41 | 61 39 | - | - | - | - |
| Calif | 2,156 | 1,434 | - | 1,152 | 930 | - | 33 | 1 | 146 |
| Alaska Hawaii | 2 5 | 15 | - | 18 61 | 17 53 | | 2 | : | 1 - |
| Guam | 1 | 1 | - | _4 | _ : | - | - | - | |
| PR VI | 301 3 | 255 | - | 76 1 | 81 1 | - | - | | 22 |
| Pac Trust Terr | 83 | 54 | - | 52 | Ž | - | 9 | - | - |
| Amer Samoa | 2 | - | <u>-</u> | - | - | - | • | - | - |

TABLE IV. Deaths in 121 U.S. cities.* week ending April 25, 1987 (16th Week)

| | | All Caus | es, By A | ge (Year | s) | | | | | All Cause | s, By A | ge (Years | s) | | - |
|---------------------------------------|-------------|------------|----------|----------|--------|--------|----------------|--|---------------------|-----------|----------|-----------|--------|--------|----------------|
| Reporting Area | Ali Ages | ≥65 | 45-64 | 25-44 | 1-24 | <1 | P&I** Total | Reporting Area | All Ages | ≥65 | 45-64 | 25-44 | 1-24 | <1 | P&I** Total |
| NEW ENGLAND | 646 | 459 | 123 | 33 | 18 | 13 | 57 | S. ATLANTIC | 1,189 | 748 | 250 | 108 | 35 | 48 | 65 |
| Boston, Mass | 169 | 104 | 36 | 19 | 4 | 6 | 24 | Atlanta, Ga. § | 167 | 98 | 38 | 18 | 4 | 9 | 4 |
| Bridgeport, Conn. | 51 | 38 | 8 | 2 | 2 | 1 | 4 | Baltimore, Md | 177 | 112 | 40 | 15 | 3 | 7 | 15 |
| Cambridge, Mass Fall River, Mass | 23 | 19 | 4 | - | - | - | 5 | Charlotte, N.C. | 80 | 53 | 15 | 4 | 2 | 6 | 5 |
| Hartford, Conn. | 35 64 | 29 45 | 6 9 | 4 | - | - | 1 | Jacksonville, Fla. Miami, Fla. | 108 110 | 61 71 | 29 20 | 10 14 | 5 3 | 3 2 | 3 |
| Lowell, Mass | 21 | 14 | 4 | 2 | 6 | 1 | 1 2 | Norfolk, Va. | 64 | 39 | 11 | 5 | 4 | 5 | 4 |
| Lynn, Mass. | 16 | 13 | 3 | - | - | ' | 1 | Richmond, Va. | 61 | 40 | 15 | 4 | 1 | 1 | 9 |
| New Bedford, Mass | 25 | 16 | 8 | - | 1 | - | i | Savannah, Ga. | 44 | 29 | 8 | 5 | ż | - | 9 |
| New Haven, Conn. | 73 | 59 | 7 | 3 | 3 | 1 | 7 | St. Petersburg, Fla. | 95 | 78 | 8 | 5 | 1 | 3 | 5 |
| Providence, R.I. Somerville, Mass. | 40 | 33 | 7 | - | - | - | 4 | Tampa Fla. | 70 | 47 | 12 | 8 | 2 | 1 | 5 |
| Springfield, Mass. | 15 34 | 11 | 4 | - | - | - | - | Washington, D.C | 191 | 102 | 50 | 20 | 8 | 11 | 4 |
| Waterbury, Conn. | 33 | 19 24 | 12 | 1 | 1 | 1 | 2 | Wilmington, Del | 22 | 18 | 4 | - | - | - | 2 |
| Worcester, Mass. | 47 | 35 | 6 9 | 1 | 1 | 1 | 2 | E.S. CENTRAL | 749 | 479 | 172 | 64 | 23 | 11 | 55 |
| | ٠, | 33 | 9 | • | - | 2 | 3 | Birmingham, Ala | 135 | 85 | 32 | | -5 | 4 | 5 |
| | 3,041 | 1,978 | 629 | 271 | 80 | 82 | 117 | Chattanooga, Tenr | 46 | 34 | 6 | 2 | 4 | - | 4 |
| Albany, N.Y. | 49 | 29 | 9 | 6 | 2 | 3 | 1 | Knoxville, Tenn. | 74 | 50 | 18 | 6 | - | - | 6 |
| Allentown, Pa | 23 | 17 | 6 | - | - | - | - | Louisville, Ky | 92 | 67 | 15 | . 7 | 2 | 1 | 7 |
| Buffalo, N.Y. Camden, N.J. | 137 43 | 92 22 | 26 | 13 | 3 | 3 | 10 | Memphis, Tenn | 192 | 116 | 55 | 17 | 4 | - | 20 |
| Elizabeth, N.J | 25 | 19 | 9 2 | 4 | 7 | 1 | 1 | Mobile, Ala | 63 27 | 38 18 | 15 7 | 4 2 | 3 | 3 | 6 2 |
| Erie, Pa.† | 39 | 26 | 10 | 4 | 1 | 2 | - | Montgomery, Ala Nashville, Tenn | 120 | 71 | 24 | 17 | 5 | 3 | 5 |
| Jersey City, N.J. | 178 | 129 | 29 | 15 | i | 4 | 3 7 | Mastiville, Tellil | 120 | ,, | 24 | ٠, | 5 | 3 | 3 |
| | ,526 | 937 | | 161 | 44 | 41 | 49 | W.S. CENTRAL | 1.377 | 856 | 318 | 111 | 49 | 41 | 63 |
| Newark, N.J. | 63 | 25 | 15 | 12 | 4 | 6 | 3 | Austin, Tex. | 49 | 31 | 10 | | 4 | 41 | 5 |
| Paterson, N.J. | 27 | 18 | 1 | 5 | 1 | 2 | - | Baton Rouge, La. | 57 | 34 | 16 | | ī | 3 | 5 |
| Philadelphia, Pa | 501 | 346 | 100 | 31 | 12 | 12 | 23 | Corpus Christi, Tex | | 34 | 15 | 3 | 5 | 2 | 1 |
| Pittsburgh, Pa.† Reading, Pa. | 53 | 33 | 14 | 3 | 2 | 1 | 1 | Dallas, Tex | 206 | 124 | 43 | | 9 | 6 | 4 |
| Rochester, N.Y. | 38 107 | 27 83 | 8 | 2 | - | 1 | 3 | El Paso, Tex. | 60 | 37 | 18 | | | 3 | 7 |
| Schenectady, N.Y | 18 | 13 | 14 5 | 6 | 1 | 3 | 5 | Fort Worth, Tex. Houston, Tex § | 110 308 | 72 176 | 19 | | 2 | 8 | 8 |
| Scranton, Pa.† | 23 | 18 | 4 | 1 | - | - | 1 2 | Little Rock, Ark | 71 | 49 | 74 16 | | 13 | 11 | 7 |
| Syracuse, N.Y. | 85 | 65 | 14 | i | 2 | 3 | 6 | New Orleans, La | 138 | 80 | 38 | | 1 6 | 3 | 5 |
| Trenton, N.J. | 55 | 37 | 12 | 6 | - | - | 2 | San Antonio, Tex | 144 | 94 | 34 | | 4 | 2 | 6 |
| Utica, N.Y. | 29 | 24 | 4 | 1 | - | - | - | Shreveport, La. | 54 | 41 | 8 | | - | ī | 1 |
| Yonkers, N.Y. | 22 | 18 | 4 | - | - | - | - | Tulsa, Okla | 121 | 84 | 27 | 5 | 4 | 1 | 14 |
| | 2,419 | 1,558 | 568 | 163 | 63 | 67 | 98 | MOUNTAIN | 642 | 425 | 139 | 40 | 20 | 17 | 41 |
| Akron, Ohio | 59 | 40 | 15 | - | 2 | 2 | | Albuquerque, N.Me | | 52 | 11 | | 6 | 1 | 5 |
| Canton, Ohio Chicago, III.§ | 39 564 | 26 | 10 | | 1 | 2 | 6 | Colo Springs, Colo | | 40 | 9 | | - | - | 12 |
| Cincinnati, Ohio | 157 | 362 103 | 125 | 45 | 10 | 22 | 16 | Denver, Colo. | 96 95 | 72 61 | 15 | | 3 | 2 | 7 |
| Cleveland, Ohio | 201 | 123 | 47 55 | 1 15 | 5 5 | 1 3 | 9 | Las Vegas, Nev Ogden, Utah | 20 | 14 | 25 | | 1 | 4 | 8 |
| Columbus, Ohio | 203 | 131 | 43 | 13 | 7 | 9 | 15 | Phoenix, Ariz | 133 | 75 | 40 | | 5 | 5 | 1 |
| Dayton, Ohio | 133 | 80 | 41 | 8 | 4 | - | 5 | Pueblo, Colo | 25 | 19 | 2 | | 2 | 1 | 1 |
| Detroit, Mich. | 250 | 151 | 55 | 23 | 12 | 9 | 9 | Salt Lake City, Utah | | 21 | 9 | | 2 | ż | 2 |
| Evansville, Ind | 32 | 19 | 6 | 5 | 2 | - | 3 | Tucson, Ariz | 102 | 71 | 25 | | 1 | - | 2 |
| Fort Wayne, Ind. | 70 | 51 | 15 | 3 | - | 1 | 4 | | | | | | | | |
| Gary, Ind. Grand Rapids, Mich | 20 | 9 | 9 | 1 | 1 | - | 4 | PACIFIC C-14 | 2,031 | 1,332 | 407 | | 63 | 41 | 121 |
| Indianapolis, Ind. | 156 | 32 91 | 9 36 | 2 18 | 1 | 3 7 | 2 | Berkeley, Calif Fresno, Calif | 21 87 | 11 54 | 8 21 | | - | - | 3 8 |
| Madison, Wis | 35 | 28 | 30 6 | 1 | 4 | ′ | 2 | Glendale, Calif | 30 | 23 | 4 | | 3 1 | 3 | 2 |
| Milwaukee, Wis. | 143 | 100 | 33 | 8 | - | 2 | 4 | Honolulu, Hawaii | 83 | 48 | 20 | | | 5 | 13 |
| Peoria, III. | 43 | 25 | 13 | 2 | 1 | 2 | 3 | Long Beach, Calif | 112 | 77 | 22 | | 2 | 2 | 13 |
| Rockford, III. | 41 | 30 | 8 | ī | i | ī | 5 | Los Angeles, Calif. | 561 | 374 | 105 | | 22 | 2 | 22 |
| South Bend, Ind. | 60 | 40 | 9 | 5 | 3 | 3 | 5 | Oakland, Calif. | 76 | 55 | 9 | | 2 | - | 4 |
| Toledo, Ohio | 105 | 78 | 21 | 5 | 1 | - | 3 | Pasadena, Calif | 33 | 18 | 8 | 1 | 3 | 3 | 2 |
| Youngstown, Ohio | 61 | 39 | 12 | 7 | 3 | - | - | Portland, Oreg. | 150 | 106 | 29 | | 5 | 2 | . 7 |
| W.N. CENTRAL | 796 | 543 | 151 | 45 | 17 | 25 | 61 | Sacramento, Calif San Diego, Calif. | 151 | 95 | 37 | | 5 | 3 | 18 |
| Des Moines, Iowa | 55 | 39 | 14 | 1 | 1 | 23 | 6 | San Diego, Calif. San Francisco, Cali | 135 f 181 | 87 100 | 19 | | 5 4 | 8 | 3 7 |
| Duluth, Minn. | 20 | 19 | 1 | - | | - | 1 | San Jose, Calif. | 169 | 111 | 45 39 | | 6 | 3 4 | 11 |
| Kansas City, Kans | 44 | 23 | 11 | 6 | | 4 | i | Seattle, Wash. | 150 | 106 | 24 | | 2 | 3 | ' 7 |
| Kansas City, Mo. | 115 | 77 | 26 | 9 | 3 | - | 4 | Spokane, Wash | 54 | 40 | 11 | | - | 2 | 1 |
| Lincoln, Nebr. | 21 | 12 | 7 | 2 | - | - | 2 | Tacoma, Wash | 38 | 27 | . 6 | | 3 | ī | |
| Minneapolis, Minn | 186 | 136 | 31 | 9 | 2 | 8 | 17 | | | | | | _ | | |
| Omaha, Nebr | 71 | 50 | 12 | 3 | 3 | 3 | 7 | TOTAL | 12,890 [†] | 8,378 | 2,757 | 1,017 | 368 | 345 | 678 |
| St. Louis, Mo. | 161 62 | 104 38 | 37 | 10 | 3 | 7 | 14 | | | | | | | | |
| St. Paul, Minn. Wichita, Kans. | 62 61 | 38 45 | 5 7 | 5 | 4 1 | 3 | 1 8 | | | | | | | | |
| | | | | | | | | | | | | | | | |

^{*} Mortality data in this table are voluntarily reported from 121 cities in the United States, most of which have populations of 100,000 or

††Total includes unknown ages

more. A death is reported by the place of its occurrence and by the week that the death certificate was filed. Fetal deaths are not included ** Pneumonia and influenza † Because of changes in reporting methods in these 3 Pennsylvania cities, these numbers are partial counts for the current week. Complete

counts will be available in 4 to 6 weeks.

[§] Data not available. Figures are estimates based on average of past 4 weeks

Conjunctivitis — Continued

and India (CDC, unpublished data) (9). It is possible that CA24v, like EV70, may spread to other areas in the western hemisphere

EV70 and CA24v are antigenically unrelated, and infection with one virus does not induce neutralizing antibody against the other. This is particularly important in the diagnosis of AHC caused by EV70 because this virus is difficult to isolate. Attempts at viral culture of CA24v are more successful, with isolates often obtained from >40% of specimens using human cell lines (HeLa, HEp-2, HLF). EV70 outbreaks have also been diagnosed using an IgM capture enzyme-linked immunosorbent assay (ELISA) (10).

Characterization of an isolate of either serotype usually is accomplished by neutralization studies with type-specific antisera, but it can also be accomplished by a monoclonal antibody ELISA as has been done with EV70 (11). Attempts to type CA24v isolates with polyclonal serum can sometimes be confused by a one-way cross reaction with echovirus 34 antisera. Echovirus 34 antiserum neutralizes CA24v, but CA24v antiserum does not neutralize echovirus 34 (12).

Clinicians are encouraged to report cases of AHC caused by CA24v to their state or territorial health departments. They are also encouraged to send isolates of CA24v through their state or territorial laboratories to the Division of Viral Diseases, Center for Infectious Diseases, CDC.

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Perspectives in Disease Prevention and Health Promotion

Behavioral Risk Factor Surveillance — Selected States, 1986

The Behavioral Risk Factor Surveillance System (BRFSS) completed its third year of data collection in 1986 (1,2). During 1986, data on the prevalence of health behaviors and practices were collected from 34,395 adults (persons ≥ 18 years of age) in 25 states and the District of Columbia. Telephone interviews were conducted monthly using random-digit dialing techniques and standard questionnaires and procedures developed jointly by the state health departments and CDC (3,4). The results presented here are weighted to account for the age, race, and sex distribution of adults in each state as well as for the respondent's probability of selection. They are, therefore, representative of the adult population of each participating state.

The rates of self-reported risk factors for cardiovascular disease varied by state (Table 1). The prevalence of overweight varied almost twofold, from a low of 16.5% to a high of 28.7% of the adult population. Similarly, the prevalence of sedentary lifestyle varied from 48.0% to 72.2%. In addition, the prevalence of cigarette smoking varied almost twofold, from 18.2% to 34.7%.

TABLE 1. Cardiovascular-related behavioral risk factor rates* in 25 states and the District of Columbia — United States. 1986

| | | | | | lentary | Current Smoker¶ | | |
|----------------------|--------|--------|---------------------|--------|--------------------|--------------------|---------|--|
| | Sample | Over | weight [†] | Life | style [§] | | | |
| State | Size | (%) | 95%CI** | (%) | 95%CI** | (%) | 95%CI** | |
| Alabama | 559 | (22.9) | ±3.9 | (60.9) | ± 5.0 | (24.6) | ±4.1 | |
| Arizona | 1,178 | (18.3) | ± 2.5 | (49.9) | ± 3.1 | (24.4) | ±2.8 | |
| California | 1,579 | (21.5) | ±2.3 | (58.0) | ±2.9 | (24.5) | ±2.4 | |
| District of Columbia | 1,145 | (26.1) | ±3.5 | (55.9) | ±3.4 | (26.6) | ± 3.1 | |
| Florida | 1,162 | (21.0) | ±2.5 | (62.5) | ±3.0 | (27.9) | ± 2.8 | |
| Georgia | 1,140 | (20.5) | ± 2.8 | (65.0) | ±3.1 | (27.2) | ±2.9 | |
| Hawaii | 1,551 | (16.5) | ±2.4 | (48.0) | ±3.4 | (24.4) | ±2.9 | |
| Idaho | 1,185 | (22.9) | ±2.6 | (51.8) | ±3.5 | (23.4) | ± 2.6 | |
| Illinois | 1,142 | (22.0) | ±2.7 | (64.9) | ±3.0 | (27.8) | ±2.8 | |
| Indiana | 1,182 | (25.2) | ± 2.7 | (59.4) | ±3.2 | (27.2) | ±3.0 | |
| Kentucky | 1,216 | (25.6) | ± 2.7 | (72.2) | ±3.0 | (34.7) | ±3.2 | |
| Massachusetts | 1,105 | (22.2) | ± 2.6 | (52.3) | ±3.4 | (27.0) | ±3.0 | |
| Minnesota | 3,023 | (22.3) | ±1.6 | (54.6) | ± 1.9 | (25.1) | ±1.7 | |
| Missouri | 873 | (26.3) | ±3.5 | (60.0) | ±3.7 | (25.7) | ± 3.3 | |
| Montana | 1,176 | (21.2) | ± 2.5 | (48.7) | ±3.4 | (23.0) | ± 2.7 | |
| New Mexico | 1,139 | (18.4) | ±2.7 | (53.5) | ±3.3 | (26.1) | ± 2.8 | |
| New York | 1,135 | (22.5) | ± 2.6 | (59.6) | ±3.3 | (27.0) | ± 3.0 | |
| North Carolina | 1,622 | (25.2) | ±2.2 | (61.9) | ±2.7 | (26.5) | ± 2.4 | |
| North Dakota | 1,182 | (26.0) | ±2.8 | (63.4) | ±3.1 | (26.0) | ± 2.9 | |
| Ohio | 1,158 | (23.7) | ± 2.6 | (58.1) | ±3.3 | (28.0) | ± 2.8 | |
| Rhode Island | 1,535 | (25.0) | ±2.4 | (65.6) | ±2.8 | (30.2) | ± 2.5 | |
| South Carolina | 1,793 | (24.2) | ±2.2 | (66.5) | ± 2.5 | (26.5) | ±2.4 | |
| Tennessee | 1,779 | (22.7) | ± 2.2 | (65.5) | ± 2.6 | (28.0) | ± 2.4 | |
| Utah | 1,188 | (17.4) | ±2.5 | (49.1) | ±3.4 | (18.2) | ± 2.5 | |
| West Virginia | 1,380 | (27.7) | ±2.7 | (60.9) | ±2.9 | (29.1) | ± 2.8 | |
| Wisconsin | 1,268 | (28.7) | ±2.7 | (54.9) | ±3.0 | (26.0) | ± 2.6 | |

^{*}Percentages.

^{†120%} or more of ideal weight, which was defined as the mid-value of the medium frame person on the 1959 Metropolitan Life Insurance Company height/weight tables.

 $[\]S$ Persons reporting < 20 minutes of leisure-time physical activity at least three times per week.

[¶]Current cigarette smoker.

^{**}CI = confidence interval

Risk Factor Surveillance - Continued

Compared with the cardiovascular disease risk factors, alcohol- and driving-related behaviors showed even more marked variation by state (Table 2). Heavier drinking varied almost threefold, from 3.7% to 10.8%. Binge drinking varied over fourfold, from 7.2% to 29.6%. Drinking and driving varied over sixfold, from 1.5% to 9.6%. Finally, seat belt nonuse varied over eightfold, from 8.8% to 71.2%.

Reported by: BR Powell, Alabama Dept of Public Health. T Hughes, Arizona Dept of Health Svcs. F Capell, California Dept of Health Svcs. R Conn, EdD, District of Columbia Dept of Human Svcs. WW Mahoney, Florida Dept of Health and Rehabilitative Svcs. JD Smith, Georgia Dept of Human Resources. E Tash, Hawaii State Health Dept. JV Patterson, Idaho Dept of Health and Welfare. D Patterson, Illinois Dept of Public Health. S Jain, Indiana State Board of Health. K Bramblett, Kentucky Cabinet for Human Resources. SJ Allison, Massachusetts Dept of Public Health. N Salem, Minnesota Center for Health Statistics. M Van Tuinen, PhD, Missouri Dept of Health. R Moon, Montana Dept of Health and Environmental Sciences. L Pendley, New Mexico Health and Environment Dept. H Bzduch, New York State Dept of Health. C Washington, North Carolina Dept of Human Resources. B Lee, North Dakota State Dept of Health. E Capwell, Ohio Dept of Health. J Cataldo, Rhode Island Dept of Health. FC Wheeler, PhD, South Carolina Dept of Health and Environmental Control. J Fortune, Tennessee Dept of Health and Environment. G Edwards, Utah Dept of Health. LR Anderson, West Virginia Dept of Health. DR Murray, Wisconsin Center for Health Statistics. Div of Nutrition, Center for Health Promotion and Education, CDC.

TABLE 2. Alcohol- and driving-related behavioral risk factor rates* in 25 states and the District of Columbia — United States, 1986

| State | Sample D | | nge iking [†] 95%CI ^{††} | He Dri (%) | nking [§] 95%CI ^{††} | | king & king [¶] 95%CI ^{††} | | Seatbelt Nonuse** (%) 95%CI ^{††} | | |
|----------------------|----------|--------|--|------------------|---|-------|--|--------|---|--|--|
| Alabama | 559 | (10.2) | ± 3.4 | (5.4) | ± 2.7 | (1.6) | ±1.0 | (62.7) | ± 4.7 | | |
| Arizona | 1,178 | (16.7) | ± 2.5 | (8.3) | ±1.9 | (4.0) | ±1.3 | (44.1) | ±3.3 | | |
| California | 1,579 | (17.1) | ± 2.1 | (7.8) | ± 1.5 | (4.8) | ± 1.3 | (20.2) | ± 2.4 | | |
| District of Columbia | 1,145 | (16.2) | ±2.6 | (7.8) | ± 1.9 | (2.7) | ± 1.1 | (28.1) | ±3.4 | | |
| Florida | 1,162 | (17.7) | ±2.7 | (9.8) | ± 2.1 | (4.7) | ± 1.4 | (42.4) | ± 3.4 | | |
| Georgia | 1,140 | (12.7) | ±2.2 | (4.3) | ± 1.3 | (3.8) | ± 1.3 | (60.6) | ±3.4 | | |
| Hawaii | 1,551 | (21.1) | ±2.9 | (9.9) | ±1.9 | (3.6) | ±1.2 | (8.8) | ±1.9 | | |
| Idaho | 1,185 | (17.6) | ± 2.6 | (5.7) | ± 1.7 | (3.6) | ±1.4 | (51.2) | ±3.4 | | |
| Illinois | 1,142 | (19.6) | ±2.8 | (8.1) | ±1.9 | (7.3) | ±1.8 | (35.4) | ± 3.1 | | |
| Indiana | 1,182 | (17.7) | ± 2.5 | (7.6) | ± 1.7 | (4.5) | ± 1.4 | (59.1) | ± 3.2 | | |
| Kentucky | 1,216 | (11.2) | ± 2.3 | (6.2) | ± 1.7 | (1.5) | ± 0.8 | (63.8) | ±3.2 | | |
| Massachusetts | 1,105 | (23.5) | ±3.0 | (10.6) | ± 2.2 | (5.6) | ± 1.6 | (33.3) | ±3.3 | | |
| Minnesota | 3,023 | (23.7) | ±1.8 | (7.6) | ± 1.1 | (5.6) | ± 0.9 | (48.3) | ± 2.1 | | |
| Missouri | 873 | (18.9) | ±3.3 | (6.7) | ± 2.0 | (4.5) | ± 1.7 | (47.3) | ±4.0 | | |
| Montana | 1,176 | (22.6) | ±3.0 | (4.6) | ±1.7 | (6.6) | ± 1.8 | (61.8) | ± 3.1 | | |
| New Mexico | 1,139 | (13.1) | ± 2.3 | (7.8) | ± 1.8 | (4.4) | ± 1.3 | (17.8) | ± 2.5 | | |
| New York | 1,135 | (15.9) | ±2.5 | (7.4) | ±1.9 | (2.0) | ± 1.0 | (19.9) | ± 2.7 | | |
| North Carolina | 1,622 | (12.9) | ± 2.1 | (5.2) | ±1.4 | (3.5) | ±1.2 | (30.6) | ± 2.6 | | |
| North Dakota | 1,182 | (23.9) | ± 3.1 | (4.7) | ± 1.5 | (5.8) | ± 1.6 | (71.2) | ± 3.3 | | |
| Ohio | 1,158 | (20.2) | ±2.8 | (9.4) | ± 2.0 | (4.7) | ± 1.6 | (35.4) | ± 3.4 | | |
| Rhode Island | 1,535 | (14.7) | ± 2.1 | (7.4) | ± 1.6 | (2.8) | ± 0.9 | (59.4) | ± 2.7 | | |
| South Carolina | 1,793 | (7.2) | ±1.4 | (4.0) | ± 1.0 | (2.6) | ± 0.8 | (52.4) | ± 2.6 | | |
| Tennessee | 1,779 | (9.9) | ±1.8 | (3.7) | ± 1.1 | (2.0) | ±0.8 | (50.6) | ± 2.7 | | |
| Utah | 1,188 | (13.3) | ± 2.2 | (4.3) | ± 1.3 | (3.4) | ±1.2 | (47.4) | ±3.4 | | |
| West Virginia | 1,380 | (13.1) | ± 2.2 | (5.2) | ± 1.5 | (2.9) | ± 1.2 | (61.9) | ± 2.9 | | |
| Wisconsin | 1,268 | (29.6) | ±2.8 | (10.8) | ± 2.0 | (9.6) | ±1.8 | (61.9) | ± 2.9 | | |

^{*}Percentages

[†]Persons reporting consumption of five or more drinks on an occasion one or more times in the past month.

Persons reporting an average total alcoholic beverage intake exceeding 60 drinks per month.

Persons reporting driving after having too much to drink one or more times in the past month.

^{**}Persons reporting sometimes, seldom, or never using a seat belt when riding in or driving a car. To portray risk, data are presented as the prevalence of seat belt nonuse.

^{††}CI = confidence interval.

Risk Factor Surveillance — Continued

Editorial Note: The prevalence of self-reported behavioral risk factors varies markedly from state to state. This variability is, in part, a result of the social, cultural, and economic heterogeneity of the states surveyed. Some of the observed differences in risk factors may also be due to differences in trends over time. For example, between 1984 and 1986, all of the 15 states collecting data during both years reported a decline in the percentage of the population that failed to use seat belts. However, the magnitude of the decline varied widely, from 6% to 41%.

The data presented here represent only selected risk factors taken from the 1986 BRFSS. Additional information was collected on high blood pressure treatment and nonpharmacologic practices; physical activity during leisure time; dieting practices; attempts at smoking cessation; smokeless tobacco use; and wine, beer, and liquor use. In addition, many participating states asked health-related questions of particular interest to their state.

The differences among states in the rates of these risk factors and health practices demonstrate the value of state-specific data. State health departments can use the data to set health objectives and/or develop a state health plan. They can also be used to support legislation on such issues as clean indoor air and seat belt use and to inform the public about the status and importance of personal health practices. In cooperation with these state efforts, risk-factor-specific reports using data from the BRFSS will be published in upcoming issues of the MMWR.

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Current Trends

Tuberculosis Provisional Data — United States, 1986

In 1986, a provisional total of 22,575 tuberculosis cases was reported to CDC. This was an increase of 374 cases (1.7%) over the 1985 final total of 22,201 cases (Figure 4). In 1986, the provisional incidence rate was 9.4/100,000 population, a 1.1% increase from the 1985 final rate of 9.3/100,000.

Reported by: Div of Tuberculosis Control, Center for Prevention Svcs, CDC.

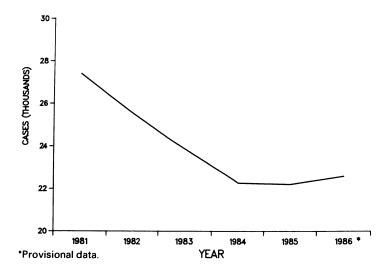
Editorial Note: For the period 1982-1984, the incidence of tuberculosis declined an average of 1,706 cases (6.7%) a year. In 1985, this steadily downward trend halted when there was a decline of 54 cases (0.2%). The increase in cases in 1986 marks the first substantial rise in indigenous tuberculosis morbidity in the United States since 1953, when national reporting of tuberculosis was fully implemented.

While the reasons for this increase are not fully known, available evidence suggests that persons infected with both the human immunodeficiency virus (HIV) and the tubercle bacillus account for part of the change in morbidity (1-6). Matching of AIDS and tuberculosis registries in 24 states and four localities indicates that 645 (4.2%) of 15,181 patients with AIDS have also had tuberculosis. In addition, an increase in tuberculosis among minorities (4), the homeless, and persons born in foreign countries may be contributing to the overall increase in morbidity.

Tuberculosis - Continued

The impact of AIDS and HIV infection on tuberculosis morbidity in the United States would be better understood if all health departments would match AIDS and tuberculosis registries. Health departments should routinely offer HIV testing and counseling to patients with tuberculosis, and the confidentiality of results should be assured. Individuals with both HIV and tuberculous infection should be managed according to recently published guidelines (7).

FIGURE 4. Reported tuberculosis cases — United States, 1981-1986



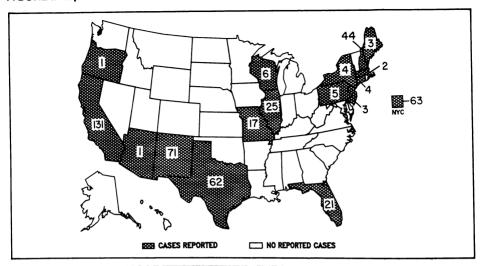
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Erratum: Vol. 36, No. 15

p. 237 In the article entitled "Premature Mortality Due to Sudden Infant Death Syndrome—United States, 1980-1986", the last paragraph on page 237 should have continued on the next page as follows: "Deaths that would be classified as SIDS but that occur in children ≥1 year of age are classified as instantaneous deaths by NCHS and are coded 798.1 by ICD-9. In addition, there is no minimum age for the diagnosis of SIDS, and, in 1980-1983, 105,748 YPLL due to SIDS occurred in the neonatal period".

FIGURE I. Reported measles cases — United States, weeks 12-15, 1987



The Morbidity and Mortality Weekly Report is prepared by the Centers for Disease Control, Atlanta, Georgia, and available on a paid subscription basis from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402, (202) 783-3238.

The data in this report are provisional, based on weekly reports to CDC by state health departments. The reporting week concludes at close of business on Friday; compiled data on a national basis are officially released to the public on the succeeding Friday.

The editor welcomes accounts of interesting cases, outbreaks, environmental hazards, or other public health problems of current interest to health officials. Such reports and any other matters pertaining to editorial or other textual considerations should be addressed to: ATTN: Editor, Morbidity and Mortality Weekly Report, Centers for Disease Control, Atlanta, Georgia 30333.

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±U.S. Government Printing Office:1987-730-145/40058 Region IV

DEPARTMENT OF HEALTH & HUMAN SERVICES Public Health Service

Centers for Disease Control Atlanta GA 30333

Official Business
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